**Major Research Project**

**Winter Term**

*“Oral & PowerPoint Presentations on a Human Genetic Disorder”*

Final presentations must include a PowerPoint. PowerPoint should have **large, clear, visible illustrations, words, and diagrams.** Larger fonts with short, easily read captions are preferred. More credit is given to originality of symbols, diagrams, and illustrations.

**All pictures and diagrams used must be explained and used in the presentation and not just a visual prop!**

You will be giving your presentation orally to the ENTIRE class (deep breath it will be OK ☺. Since communication is a key element of the scientific process, **the presentations should not be read from notes or the screen and you should maintain eye contact with your audience. As you present your genetic disorder, your listeners will take notes and be responsible for any test question about your disorder. Oral presentations will be at least 4 minutes and no more than 6 minutes.**

**Required Items:**

1. **Chromosome?**: Produce sketches of the chromosome(s) effected. Sketch or draw the chromosome so that it is a full page showing the location of your trait (disorder). Include the number of the chromosome you are working with and the trait location code on the chromosome.
2. **Causation:**  What is happening at the cellular level that is causing the disorder/disease to occur? Be able to describe at least one major protein that is involved in your disorder/disease.
3. **Symptom(s)** : You will need to include as many symptoms of the disorder as possible. You should have at least **5** symptoms with visuals to show the symptoms…be creative! Explain **WHY** it is a symptom!
4. **Treatments & History:** Include treatments that have been used in the past. What is being used now that is different and possible advancements in treatment? Identify the How, When, and Where was the genetic disorder found? Include the name of the scientist(s) that was part of the history/discovery of the disorder. (Timelines may be useful.)
   1. The last slide must be your Works Cited page;
      1. Must use at least **2** textual sources
      2. Can use no more than **5** internet sites
      3. Interviews are strongly encouraged

**“Make sure YOU understand EVERYTHING in your presentation and materials!”**

**How will you make your presentation stand-out? Can you be confident about the technical information without reading a script? How will you prepare for the presentation?**